

Erosion Assessment and Management Plan for MTC Fort Pickett Training Lands - Final Report

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ABSTRACT. A GIS-based modeling process identified sites on Army National Guard Maneuver Training Center – Fort Pickett (MTC Fort Pickett) where more erodible soil types occur on steeper slopes with less vegetative cover and greater likelihood of training activity in proximity to a watercourse/wetland. These factors increase the potential for delivery of sediment that can result in decreased water quality. Fifty-four percent of sites identified by the model showed some signs of erosion impacts. Sites dominated by herbaceous vegetation were more greatly affected than forested areas. Sites most affected by erosion all occurred in close proximity to roads and tank trails. Erosion on MTC Fort Pickett training lands is certainly not limited to the sites identified by the model, but EMS sites should be considered when planning any activity with land-disturbing potential and would be a good basis for erosion monitoring.

Road/stream crossing sites (RS) on-base are identified within the corridor surrounding the Nottoway River. Sites are evaluated and ranked by factors that influence the potential for introduction of sediment from erosion into the surface water system. Greater than 75% of RS sites showed some sign of erosion impacts. Greater than 15% showed large amounts of exposed soil. The greatest potential for negative impacts to watercourses on MTC Fort Pickett documented in this study is due to lack of vegetative cover at road/stream crossing sites.

Disturbed areas must be stabilized immediately to minimize the extent of exposed areas and duration of exposure. The most economical and practical means to both prevent and mitigate erosion damage is vegetative cover. Any repair or maintenance work must be considered incomplete until any vegetation removed or damaged in the process has been successfully replaced or repaired. Monitoring and maintenance must follow to insure objectives are met. As long as bare soil is left exposed the full benefits of much expensive and time-consuming work are not being achieved. Resources and references to support informed decision-making are also provided.